# BOOK REVIEWS

GENERAL PHYSICS-MECHANICS AND MOLECULAR PHYSICS—by Landau, Akhiezer and Lifshitz (English translation by Sykes, Petford and Petford). Pergamon Press 1967 Price-50sh, pp 372

The book covers a very wide area of physics in what the authors call an attmpt "to acquaint the reader with the principal phenomena and most important laws of physics". However this acquaintance can hardly be deep or critical for the book of 372 pages has something to say about a rather wide variety of topics. Naturally enough one misses very often a discussion or mathematical treatment which can in any sense be called complete. Yet if anybody likes to have an idea of say classical mechanics, classical field theory, the crystalline symmetry and lattices, the kinetic theory, the laws and approach of thermodynamics, the electrolytes, chemical reactions and surface phenomena, transport properties, plasticity and elasticity, and viscosity (well, here there are a few pages on superfluidity even) in one single small volume then here is that unique combination and he will also have a flavour of the lucidity, and originality which has characterised the now famous series of texts by Landau and Lifshitz. This book will not serve as a text book for any course in our universities but will be a pleasant reading outstudy book for undergraduate students in Physics and Chemistry and will help in clarifying their ideas.

*A.K R.C.*

A SHORT TEXT BOOK OF PHYSICS—by Wilhelm H. Westphal Springer-Verlag, Berlin Price 97s.

This book is meant for students for whom Physics is a secondary subject and whose mathematical equipment is rather poor. Use of even elementary calculus and complex quantities has been avoided. This book explains mainly elementary principles of Physics without going into details of apparatus and experimental techniques. The coverage, on the other hand, is quite good. Every aspect of physics, from Newton's law to nuclear fission and pair production has received its due emphasis. Serious students of Physics at high school level will find in this book plenty of things to ponder over and learn. One, however, feels disappointed that microscopic interpretation of properties of matter has been severely left out of consideration. An elementary discussion on kinetic theory of matter and of the free electron theory of electrical conductivity would surely not be out of place in this book which, otherwise, deals with sophistications regarding inertial and gravitational mass (p.12), origin of tides (p.53), electron microscopes, (p 197) mass defects (p. 316), the betatron (p. 322) and the like. Description of structure of matter (p. 58-60) has been too short and too sketchy. Since this topic has been introduced in the chapter on Mechanics of substances, a discussion on dislocations would be welcome. I hope that, in the next edition, these points will be attended to. The get up of the book is pleasing and it is well illustrated. The net effect is a very good elementary text book of Physics.

*G.B.M.*